DOCUMENT RESUME

ED 027 262 SP 002 245

By-Meier, John; Brudenell, Gerald
Report: Remote Training of Early Childhood Educators.
Colorado State College, Greeley. Inst. for Child Study.
Spons Agency-Office of Education (DHEW), Washington, D.C.
Pub Date Jul 68
Grant-OEG-3-7-420040-3793
Note-44p.; A Title XI Institute of the National Defense Education Act
EDRS Price MF-$0.25 HC-$2.30
Descriptors-Communication Skills, Continuous Progress Plan, *Decentralization, Disadvantaged Youth, Educational Innovation, Educational Research, *Elementary School Teachers, Evaluation Techniques, Experimental Programs, Inservice Teacher Education, Instructional Improvement, Interaction Process Analysis, *Microteaching, Minority Group Teachers, Program Descriptions, *Program Evaluation, Teacher Attitudes, *Teacher Education, Teacher Evaluation, Teacher Orientation
Identifiers-Bringing Up Children Inventory, BUC, I-E, I-E Scales, New Nursery School, SimuLAC, Simulated Lesson Analysis Chart, This I Believe Test, TIB

This final report of the 1967-68 experimental training program for teachers of young disadvantaged children details the objectives and operation of remote microteaching. Communication techniques emphasizing personal contact between the Institute staff in Colorado and trainees teaching in home schools across seven states are described and in part reproduced. The staff, whose responsibilities are individually listed, mailed to trainees videotaped learning episodes (detailed in Appendix A) designed around New Nursery School program objectives outlined in the report. Program evaluators considered first the feasibility of the training process (how location remoteness would affect microteaching and its goals) and second the attitude change in teachers. Data was collected through trainer/trainee comments, reproduced in part; three attitudinal tests, This I Believe (TIB, for which a three-item bibliography is included), Bringing Up Children (BUC), and I-E Scales (I-E), for each of which descriptions and test results are given; and the Simulated Lesson Analysis Chart (SimuLAC) comprised of nine charts to aid in lesson critiquing. Excerpts of SimuLAC and trainee responses are reproduced. Report details also cover trainee selection and orientation to microteaching, equipment management, effects of the program on the Institue, and a program projection. (LP)

EDO 27262

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

REPORT:

REMOTE TRAINING OF EARLY CHILDHOOD EDUCATORS

A TITLE XI INSTITUTE OF THE

NATIONAL DEFENSE EDUCATION ACT

OEG- 3-7-420040-3793
(July 1, 1967 - June 30, 1968)

John Meier

Gerald Brudenell

July, 1968

INSTITUTE FOR CHILD STUDY

Colorado State College

Greeley, Colorado

SP002245

The work reported herein was performed pursuant to a
Grant from the U.S. Office of Education
Department of Health, Education and Welfare

PREFACE AND ACKNOWLEDGEMENTS

This report is intended partially to satisfy contract requirements for a final report of the training program. Special emphasis is placed upon the several components of the inservice training program. Not only are written materials of value in training teachers of young children, but also films, videotapes, and critiquing instruments can add value of a more lasting nature. Appendix A lists the training components.

Appreciation is extended to each trainee affected by the Institute. Institute staff learned from trainees in this remote, yet personal alternative to traditional teacher training. Special thanks go to administrators, parents, teachers, aides, cooks, custodians, and bus drivers who assisted locally with the training program. These persons were from Boulder Valley Schools, Chattanooga Schools, Crow Reservation, Fort Berthold Reservation, Pine Ridge Oglala Sioux Reservation, Salt Lake City Schools and Sumter Pre-Primary Schools.

July, 1968

John Meier
Gerald Brudenell

Production of this final report was with the assistance of Robert Tewksbury, Lois Ayers and Linda Russell.

CONTENTS

PREFACE AND ACKNOWLEDGEMENTS ii
INTRODUCTION: A DIFFERENT KIND OF INSTITUTE 1
OBJECTIVES: 4
RATIONALE OF MICROTRAINING 5
PROGRAM OPERATION 6
TRAINEES 6
Selection 7
Orientation 9
TRAINING STRATEGY 9
Application of Microtraining 9
Learning Styles 11
EQUIPMENT 12
PERSONALIZING 13
DATA COLLECTION 15
Teacher Attitude 15
SimuLAC 18
Project Evaluation 26
INSTITUTIONAL EFFECTS 28
TRAINEE/TRAINER COMMENTS 29
PROJECTION 34
STAFF DESCRIPTIONS 36
APPENDIXES 38
A - TRAINING UNITS AND RELATED MATERIALS 38
B - SUPPLEMENTARY MATERIALS 41

INTRODUCTION

A DIFFERENT KIND OF INSTITUTE FOR TEACHER TRAINING

The school year 1967-68 saw a unique approach to teacher training supported by an NDEA Title XI grant from the United States Office of Education. The Institute was designed to test the efficiency and efficacy of training teachers in early childhood education methods by the means of filmed, written, and videotaped learning episodes. The Institute functioned within the Institute for Child Study at Colorado State College in Greeley, Colorado.[1] The Institute tested the use of microtraining techniques for remotely supervised instruction within the familiar context of the trainee's own classroom environment.

Titled "*Remote Training For Early Childhood Educators*," the Institute was designed to train teachers and aides in the (previously validated) early childhood education curriculum and procedures of the New Nursery School Research Project, Colorado State College, Greeley, Colorado.

THE INSTITUTE IDEA: A NEW APPROACH

The Remote Teacher Training Institute emerged to answer a question and to solve a problem. The question: "*Why not train teachers in their home schools?*" The problem: "*How could it be done?*" This is a problem which requires the availability of many tools and methods in one spot and needs a versatile and creative approach.

By building on the experimental efforts of microteaching at Stanford University and his personal involvement with the Experimental Program in Teacher Education (Ford Foundation) and the Rocky Mountain Educational Laboratory's program (ESEA Title IV) to improve inservice teacher education, Meier believed that he had a partial answer to the question and a start toward solving the problem. In addition to his work with the Experimental Program in Teacher Education and the Rocky Mountain Educational Laboratory, Meier also was an associate director of the New Nursery School Research Project in Greeley. Consultation with Glen Nimnicht (founder of the New Nursery School and current program director at the Far West Laboratory for Educational Research and Development, Oralie McAfee (supervising teacher of the New Nursery School, and Gerald Brudenell (a graduate student in psychology at Colorado State College) made the plan seem feasible.

The need for effective training of teachers of early childhood education is an essential one and also one in which the New Nursery

---

[1] Meier originated, proposed, and negotiated the Institute grant and provided continuing input as project originator and part-time director. Gerald Brudenell served as associate director and was responsible for directing the project's implementation.

School and Colorado State College had been actively engaged for two years as a training institution for Head Start teachers. From this need, coupled with the aforementioned expertise, an answer to the question emerged: Combine the New Nursery School methods and curriculum with filmed and televised microtraining methods.

The institute plan was designed to test the proposition that it is possible to train teachers and aides by remote techniques at long distances for an extended period of time.[1] Let's investigate the separate conditions laid out in this definition of the purpose of the the Institute.

REMOTE TECHNIQUES

The distinguishing element of the remote techniques used in this project is the visual image. How can the visual image be transported for great distances? The most logical answer is transmission by television, not by the conventional commercial or educational TV transmission. The Institute strategy was different -- and it is described below. Another visual method of teacher training is for trainees to observe actual classroom situations, the trainees were widely scattered across the nation and could not be brought to Greeley for training every two weeks or so. The strategy devised was to make five-minute films of specific learning episodes, add written descriptions of the filmed episodes plus three other episodes aimed at achieving the same learning objectives, and perform the logistics task via mail. Thus, films, written materials, and portable video-taping equipment were chosen to span the distances.

Distances are obstacles to educational change in the great open areas of the West.

---

[1]The Institute plan developed at Colorado State College was field tested in California. The Far West Laboratory for Educational Research and Development (Berkeley), with funds from the Office of Economic Opportunity, selected and trained sixty teachers and aides from five California counties: Monterey, Santa Clara, Tulare, Kings, and Fresno. A report of this project, directed by Glen Nimnicht, is presently being compiled.

LONG DISTANCES

The long distances between the institute center (Greeley, Colorado) and the training sites posed numerous problems. However, the problem was self-imposed -- this, in fact, was one of the components of the Institute design to be tested: training teachers in widely-scattered locations.

Portable videotaping equipment enabled staff and trainees, though separated by long distances, to observe and critique recorded lessons.

1. Boulder Valley Public Schools (Colorado)
2. Chattanooga Public Schools (Tennessee)
3. Crow Indian Reservation (Montana)
4. Pine Ridge Oglala Sioux Indian Reservation (South Dakota)
5. Salt Lake City Public Schools (Utah)
6. Sumter Pre-Primary Schools (South Carolina)
7. Fort Berthold Reservation (North Dakota)

AN EXTENDED PERIOD OF TIME

Most NDEA Teacher Training Institutes are neatly packed into five-, ten-, or twelve-week sessions. In contrast, the Remote Teacher Training Institute was designed to extend for the duration of a regular school year. The basic rationale for the longer time period was that a more significant and lasting change in teacher attitude and behavior could be effected by working with teachers in their own environment, within the framework of the local classroom and for a prolonged period of time.

The Institute was therefore designed to meet certain local, regional, and national educational priorities:

1. A group of teachers, diverse in experience (0 to 30+ years as teacher), age (18-63), position (teacher or aide), and level of education (high school dropout to graduate students working toward a doctorate), received inservice education for college credit.
2. Trainees were teachers and aides of disadvantaged young children in programs such as Follow Through.
3. Teachers, who are often not exposed to alternative curricula and new media, explored educational innovation under supervision in their own classrooms. In addition, trainees assisted in developing new ideas.
4. Inservice training continued for a nine-month period.
5. Course conduct responded to *local* personnel and program needs.

OBJECTIVES

The objectives of the total training program were developed by assessing the potential of the unique teacher training method. While there were numerous other objectives during the duration of the Institute, the following program objectives were judged to be crucial:

1. To test on a limited basis a novel inservice teacher training model for possible widespread implementation in such programs as Follow Through, Head Start, and E.S.E.A. Titles I and III.
2. To train approximately one hundred teachers to better accomplish four major objectives in early childhood education.
3. To further develop, implement, evaluate, and refine the curricula which have been prepared for this project.
4. To compare the relative efficacy of this approach with other more traditional training programs.

In addition, specific objectives for the course content were developed:

1. To allow each trainee to work at her own rate.
2. To provide a staff which was responsive to trainee needs, promoting the establishment of a responsive classroom by each trainee.

3. To promote for each trainee an inservice training program that was continuing, thereby insuring distributive practice and better retention of new knowledge and skills.
4. To encourage trainees to freely explore other alternatives in modifying learning episodes to meet individual learner needs.

RATIONALE OF MICROTRAINING

Basic to the Institute strategy for teacher training was the use of portable videotaping equipment. Although the content of the course was most important to the Institute's success, the method for allowing the trainees to practice their lesson and to receive personal and staff criticism relied on the use of videotape methods to span the geography. The use of videotape recording in training has a firm basis of psychological principles and educational rationale.

While the microteaching technique and the application of videotaping procedures to the technique are only relatively new in teacher training, the use of the technique, materials, and procedures have a new format for their application in the Remote Teacher Training Institute described in this report. Meier (1968) described and discussed some relevent methods and concepts in a recent article.[1] Excerpts from that article are included in the following paragraphs.

Meier defines microteaching

.....as a scaled-down sample of teaching. The term "micro" not only denotes the reduction in lesson and class size but also adds the scientific connotation of precision, in the sense that microteaching, by honing down the edge of observation to a fine-cutting process, enables an objective quantitative and qualitative analysis of the recorded behavior. Microteaching is essentially an opportunity for either preservice or in-service teachers to develop and improve their pedagogical skills with a small group of pupils (3 to 7) by means of brief (3- to 7-minute) single-concept lessons, which are recorded on videotape for reviewing, responding, refining, and reteaching. An effort is made to analyze the many aspects of a teacher's performance, to ferret out those most amenable to change, and to concentrate on their perfection one at a time. (p. 146).

Employing modern technology in the familiar microteaching is a new technique. Meier describes this application:

.....The most dramatic component in the typical microtraining process is the employment of the new medium of videotape recording for optimal and immediate feedback of the training performance. The rapidly expanding use of this new medium (made possible by

---

[1] Meier, John, "Rationale for and Application of Microtraining To Improve Teaching," The Journal of Teacher Education, Vol. XIX, No. 2, Summer, 1968, pp. 143-157.

> *the advent of portable, reliable, simple, and relatively inexpensive - from $1,100 to $3,500 - videotape recording systems) greatly augments the efficacy and accuracy of the analysis of the teaching process through the instant and repeated observation of any given teaching-learning interaction.* (p. 144)

Several learning theory commonalities are related to the microtraining process using videotaping. The last three of these commonalities are particularly fundamental to the Remote Teacher Training Institute. *Knowledge and information about performance aids the learner.* This is probably the most outstanding aspect of the use of the instant replay capabilities of videotape recording; it is related to another commonality, namely, that *transfer will be better if the learner sees the relationships himself.*

No matter what learning theory one subscribes to, microteaching meets the important requirements of the theory. The learner receives immediate feedback regarding his observable behavior enabling him to achieve the gestalt of his performance. And the trainee, because he is quickly informed of his behavior, can avoid establishing habits of undesirable classroom behaviors.

The final commonality, that *spaced distributive recalls are advantageous*, suggests that the learning and maintenance of a skill are best accomplished by the microteaching process over a period of time, a prime feature of the Remote Teacher Training Institute.

PROGRAM OPERATION

TRAINEES

Mary Barrett is a Head Start teacher. She teaches approximately 15 white English-speaking children in a rural setting. At 35 years of age she is married and has taught for several years. During 1967-68, she enrolled in an NDEA Title XI Institute as a graduate student not as concerned about applying the credit toward a degree as applying them toward state certification requirements.

The above composite profile represents the typical trainee, but does not adequately reflect trainee divergence. Differences of age and experience defy stereotyping: Age varied from 18 to 63 years; experience ran from none to over 30 years. Teachers (74 in number) graduate students (totaling 67), Head Start programs (in 5 of 7 areas), rural settings (4 of 7 areas), Anglo trainees (52 in number), and Anglo learners (over 600 of 1,456 reported) were predominant, but other groups were represented. Aides (totaling 27) and numerous other persons such as administrators, bus drivers, custodians, parents, and cooks were also affected. Undergraduates ranged from recently acquired GED's (high school equivalency) to nearly completed bachelor's degrees. (Graduate students, incidentally, included two working toward a doctorate.) Follow Through and ESEA Title I and Title III programs were affected; small town and urban settings were involved; trainees included Indians (33 in all), Negroes (20), and Spanish-American (4). Learners were also Indian

(421), Negro (279), Spanish-American (123), and Oriental (1). Table I summarizes the distribution of trainees. The following sections detail the selection and orientation of trainees.

TABLE I

CENTER	Total Trainees	Teachers	Aides	Federal Program	No.	State
Boulder Valley Schools	16	13	3	Follow Through Head Start ESEA Title I	5 2 9	Colorado
Chattanooga Public Schools	15	15	0	Follow Through Head Start	9 6	Tennessee
Sumter Pre-Primary Schools	16	7	9	ESEA: Title III	16	South Carolina
Salt Lake City Schools	15	15	0	Follow Through ESEA: Title I	4½ 10½	Utah
Oglala Sioux Reservation	16	9	7	Head Start	16	South Dakota
Crow Reservation	13	9	4	Head Start	13	Montana
Fort Berthold Reservation	10*	6	4	Head Start	10	North Dakota
TOTALS	101*	74	27	Follow Through Head Start ESEA: Title I ESEA: Title III	18½ 47 19½ 15	

*An additional five trainees (four aides and one teacher) received written and filmed materials and critiquing services, but were not enrolled for credit at Colorado State College. This inservice program was mutually planned and funded by the NDEA (Title XI) Institute, the Fort Berthold Community Action Program, and the Indian Community Action Program (University of South Dakota).

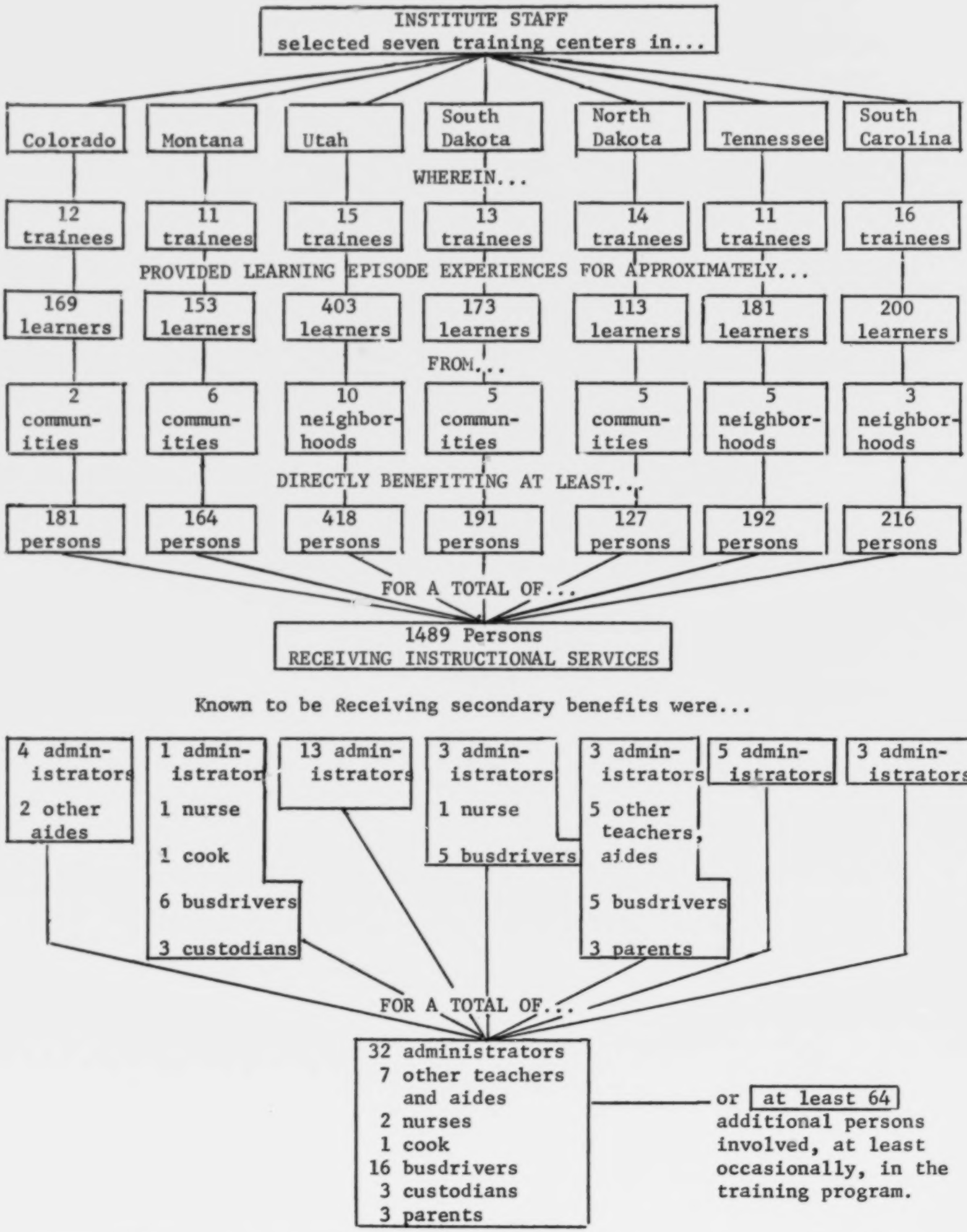
SELECTION

Areas were first selected from those program applicants who expressed interest in participating in a unique training model. Six areas were selected on a "first come, first serve" basis: Boulder Valley Public Schools, (Colorado), Chattanooga Public Schools (Tennessee), Crow Indian Reservation (Montana), Pine Ridge Oglala Sioux Indian Reservation (South Dakota), Salt Lake City Public Schools (Utah), and Sumter Pre-Primary Schools (South Carolina). In these learning centers, 15 to 17 teachers and aides were identified by local project administrators and Greeley staff to participate in this continuing inservice training program. Head Start personnel from Fort Berthold Indian Reservation were later added to the program through cooperative support from this Title XI Institute, the Indian Community Action Project at the University of South Dakota, and Fort Berthold Community Action Program. In all, over 100 trainees were directly affected by the program with secondary effects reaching many others.

Chart I illustrates primary and secondary effects of the Institute.

CHART I

Numbers of Persons Receiving Primary and Secondary Benefits from This NDEA Title XI Institute



Primary 1489 and secondary 64 benefits of this program affected 1553 individuals.

ORIENTATION

As descriptive brochures and first training units were being prepared and individual trainees were being selected during the summer of 1967, an orientation program was planned. This orientation was initially slated as two one-week sessions in Greeley with about half of the trainees attending each of the sessions. Each trainee attending receoved thirty hours (five six-hour days) of concentrated instruction.

The primary topics presented in the sessions were as follows:

1. The rationale for the responsive environment approach to early childhood education.
2. General classroom procedures used in an autotelic responsive environment.
3. The effects of environmental deprivation on child growth and development - psychological, anthropological, and sociological viewpoints.
4. The learning experiences young children need to overcome environmental deprivation.
5. The operation of the videotape recorder.
6. Critiquing and the use of related response instruments to provide two-way feedback information.

The first of the sixteen instructional units was used as an example during the Greeley in-house training session in August. However, because of uncertainties regarding some of the sites and participants, all of the orientation sessions were videotaped. A change in orienting procedures then became necessary. Instead of bringing the rest of the trainees to Greeley, the associate director of the Institute went to each training site and presented a two-day orientation using selected segments of the videotaped portions of the initial training sessions. In addition, the on-site participants were able to confer with their colleagues who had attended the in-house session. Taking the orientation to the training sites appeared preferable since the associate director was able to acquaint himself with the local situation and environment, and the trainees felt more secure in approaching the totally new curriculum, methods, and training strategy in their home setting. A conference in Greeley would have been desirable to better acquaint the trainee with the New Nursery School program and has been planned for future projects.

On-Site orientation and training was conducted through use of videotaped talks, demonstrations, and discussion.

THE TRAINING STRATEGY

APPLICATION OF MICROTRAINING

The mechanics of the training are relatively simple to follow. Each of the sixteen training units contains four learning episodes. These

sixty-four learning episodes were designed around the affective and cognitive objectives of the New Nursery School program:

Affective:

To develop a positive self-concept

Cognitive:

To increase sensory and perceptual acuity,

To improve language skills, and

To improve problem-solving and concept formation abilities.

Each of the individual training units - or *packages* - included interrelated experiences presented via a variety of media.

Trainees tried out learning episodes before presenting them to learners.

Trainees often worked together to discuss and develop their lessons. Trainees observed for critical moments in their classrooms to respond meaningfully to a learner's interest in specific learning materials.

1. A rationale for the unit and its relationship to other units;
2. Four learning episodes which relate to the unit objective;
3. A brief 16mm color sound film of a model teacher or aide demonstrating one of the learning episodes in actual classroom practice;
4. Written procedures for viewing the film and relating it to unit;
5. A videotape on which each trainee records selected learning episodes; and
6. Critiquing instruments which encourage descriptive observation and allow self-evaluation.

Unit instructions told each trainee to participate in the experiences along with the learner. A sequence for such an experience was suggested as follows:

1. CONTENT: Prepare to teach and learn.
   a. Read the written material that explains the rationale of the training unit as well as the four learning episodes within it.
   b. View the filmed example demonstrating the use of at least one of the episodes.
   c. Prepare (acquire) needed materials.
   d. Try each of the episodes alone to become familiar with lessons, materials and procedures.

2. PROCESS: Teach and learn; experience the 5 R's of microteaching.

   a. Record: The teacher videotapes herself teaching a three- to seven-minute learning episode.

   b. Review: The teacher plays the videotape, observing the lesson's strengths and needs.

   c. Respond: The teacher (and possibly other designated observers) acknowledges the lesson's strengths and needs.

   d. Refine: The teacher incorporates only one or two recommended changes in a restructuring of the learning episode, assuring greater success in the attempt at improved teaching.

   e. Reteach: The teacher videotapes herself teaching the refined learning episode.

Since the trainees also used the feedback services at Colorado State College, each mailed the completed critiquing instrument and videotape recording of the microlesson to Greeley. A staff member at the NDEA Institute center in Greeley viewed the videotape and prepared a critique using the same critiquing format as the trainee. These responses were returned to the trainee along with the tape so that the submitted attempt could be reviewed and compared with the critique. That same tape was then used for recording subsequent lessons.

Trainees typically taped the one learning episode of the four which was also included as a 16mm film. Exceptions among the sixteen training units were the third (the suggested Language Master was available to only 41 per cent of the responding trainees), the sixth (approximately the same number of trainees found the episode A[1] as valuable as the filmed episode C), the tenth (an equal number - 22 - of trainees found materials for episode A and D either more accessible or more attractive than the filmed episode B).

Videotaped lessons were usually less than five minutes in length. Critiquers found that videotapes longer than three minutes yet less than five minutes were most easily described and studied.

Trainees shared learning episodes and materials with other (non-trainee) staff at the local site.

LEARNING STYLES

Given the freedom to complete lessons at their own choice, trainees worked at varying rates. From records kept by Greeley staff of when training materials were sent and returned, three typical completion modes emerged: "steady;" "sporadic;" and "crammed." Seventeen per cent (17%) of the trainees maintained a regular schedule by submitting taped and written lessons commensurate with the issuing of training

---

[1]Each training unit contained four learning episodes, labeled A, B, C and D.

units; forty-two per cent (42%) of the trainees submitted lessons irregularly in "bunches" of three to six episodes at a time spread throughout the year; another forty-one per cent (41%) - the "crammers" - submitted their lessons in the final two months of the Institute. Most trainees shared a common obstacle: it was difficult to get started.

EQUIPMENT

Written materials are often insufficient in teacher training. When the training units provide visual as well as auditory experience, another dimension of reality is added. Educational technology facilitated this addition of reality. The color sound 16mm films of selected learning episodes and videotapes required projectors, tape recorders, and television cameras which were new to many trainees. Telelectures required temporarily-installed equipment that was also new, but generally not operated by trainees.

In addition, to the videotape recorder, a special kind of audio tape recorder, the Language Master, was demonstrated (and its use encouraged) in the Institute.

Film projectors were common and accessible to trainees in four of the seven areas. The three Indian reservations had classrooms which were often far from central offices. Trainees in these areas drove as many as 140 miles to view filmed episodes before videotaping a lesson. Urban centers usually had a projector in each school building, but it was often in use by other teachers. Where classrooms or projects did not have film projectors, equipment was borrowed from another agency such as a church.

The television equipment was rented by the Institute for six areas. The seventh area (Fort Berthold) bought its own set of videotaping equipment. Each area was responsible for scheduling and transporting the equipment between the trainee's classrooms. Bus drivers, community aides, administrators, and trainee's husbands were among those who moved equipment around an area. Trainees found it difficult to share one set of videotaping equipment with 14 to 16 other trainees. Thus, most areas bought (Chattanooga, Sumter) or rented (Boulder, Crow, Salt Lake City) at least one additional set.

Operation of the closed circuit television equipment varied from a trainee's doing everything to a trainee's doing nothing with regard to the mechanical aspects of videotaping an episode. Some trainees typically handled the entire operation of setting up, adjusting, and turning on the videocorder and camera to turning off the equipment at the completion of the lesson; however, most trainees usually had someone else do the recording. One project administrator concerned about the equipment's remaining in good condition was present at all tapings and operated the equipment. Nevertheless, the set at this location had a maintenance record similar to that of the other areas.

Television equipment maintance was a greater expense than anticipated. Trainees who were still uncertain of their ability to operate the equipment, yet anxious to complete their lessons sometimes proceeded to jam the mechanism in one way or another. There was an average of four known breakdowns in each area during the year. The most typical reason for malfunctioning equipment was going from "forward" to "rewind" without an intermediate pause at "stop". This resulted in a slack portion of videotape being caught in the rapid rotating recording head, damaging it extensively. Most trainees admitted to not regularly

consulting the operating manual during the year. Although equipment operation was a common topic, most trainees (over 80%) felt it was in good condition when they were asked during the third training unit.

Numerous inquiries have been received about the operation and maintenance of the hardware. Can a group comprised largely of women with little mechanical knowledge or interest successfully manage such elaborate equipment? It seems significant that excellent recording came in from isolated clusters of Indian women who were scattered from one end of their reservation to the other, a distance as great as 140 miles between centers "as the road goes".

Arrangements for a telelecture to some centers required the initial installation of telephone service, scarcely available in some communities which have only one central phone.

With some notable exceptions, the hardware aspect was not a serious stumbling block. The flustered, elderly teacher who accidentally plugged the 110-volt camera power cord into the 12-volt battery input of the monitor, only to watch the monitor flash and go up in smoke, found her first experience rather exasperating. An occasional broken tape and incidents of tape literally consumed by the rotating recording heads, to the utter destruction of both, served as exceptions to the rule.

Special equipment often presented difficulties in completing lessons. The Language Master, for example, was available for use in the third training unit by only 28 of 68 responding trainees. Trainees used other alternatives, however, to complete a unit and voiced appreciation for exposure (even if via film) to new media. As another example, available learning materials for counting were generally clay, peg boards, and beads; yet trainees became aware of other possibilities, many free and inexpensive (fabric swatches, sticks, buttons, nails).

PERSONALIZING

Recognizing that remote training might imply little interaction between trainees and the Greeley staff, numerous and varied means of personalizing the learning experience were used. Listed from the most direct and personal to the least direct and personal, encounters included on-site visits by a staff member to a trainee's classroom ahd home (including social get-togethers such as a group of trainees taking staff members on an evening tour of the local community), phone *visits* with individual trainees, telelectures sessions, videotape recordings, personal letters about the course and its progress, and response forms such as the critiquing instruments.

Personal contact was maintained with each trainee via on-site visits, phone calls, personal letters, and tele-lectures.

At least two on-site visits were made to each area with most local classrooms visited at least once. An additional visit was made to the Crow Reservation due to the great distances between classrooms; and with the added wupport of the Indian Community Action Program at the University of South Dakota, monthly visits were made to the Pine Ridge Oglala Sioux and Fort Berthold

University of South Dakota, monthly visits were made to the Pine Ridge Oglala Sioux and Fort Berthold Reservations. Visits generally included one group session and teaching with individual trainees in their respective classrooms. Contacts were also made with parents, public school administrators, and Community Action Agency personnel, as well as other project staff such as nurses, social workers, and other agencies in support of a comprehensive instructional program. How many typical teacher training courses afford this much communication when everyone resides in the same community?

The distance between trainee and trainer was bridged via telephone conversations when a specific difficulty required speedy resolution. One such call came from a trainee in a community without a telephone. She called the Greeley Staff long distance from a mobile radio phone for information on how to make a reluctant videocorder perform. Since the equipment manual was not accessible to the trainee, the trainee received instructions from the Greeley staff via car telephone. The trainee then turned and shouted the instructions to an assistant who made the necessary repairs. The result: the videocorder performed and the trainee videotaped a lesson.

Institute staff members talked with many parents as well as teachers during on-site visits. Parent involvement is important to the success of early childhood education programs.

A special arrangement by local phone companies allowed trainees to experience a telelecture - lecture via amplified telephone. Temporarily -installed equipment in a classroom or office permitted trainees to receive the lecture and transmit questions or comments on the lecture from anywhere in the classroom while conversing with the lecturer in Greeley.

Each videotape was an opportunity to become personally acquainted with the trainee. In return, trainees saw a few videotapes of Institute staff. An exchange of correspondence was an additional means of personal, even if delayed, interaction. The associate director wrote a letter in response to each trainee's first videotape. Subsequent letters were written in response to trainee letters, as information about the program (a cover memo went to each trainee with each training package), and as encouragement to those trainees who found it difficult to begin.

The problems of communications was met by the exchange of many letters and phone calls between the Institute center and the field locations.

A rather impersonal mimeographed critiquing instrument was sent to each trainee with each returned videotape. On each critique (or description of what was seen) the critiquer added one or two suggestions for lesson improvement.

Whether the interaction was via on-site visit, telephone, or written correspondence, the intent by the Institute staff was to *personalize* what could easily have been a remote, impersonal course. The premise: Listeners and doers are those with whom communication has been established; communication is best among individuals who are mutually respected as capable human beings.

Interpersonal relationships varied among trainees, but most established contacts were generally more intense and personal than ordinarily exists in a college class. This may have been due to staff concern that the program not be personally *remote* and non-encouraging The extent of trainer/trainee rapport appears to have been a factor in the trainee's completion of the required tasks since those trainees with whom visits, phone calls, and visits were most frequent were often the trainees who completed the most training units.

DATA COLLECTION

TEACHER ATTITUDES

Three attitudinal scales were administered during fall and spring on-site visits: *This I Believe Test* (TIB), *Bringing Up Children* (BUC), and the *I-E Scales* (I-E). Intentions were to examine attitudinal changes of trainees. Since some trainees refused to complete instruments and others either entered the project late or withdrew from the program, statistical pre- and post-training data comparisons were not performed. A description of the instruments and a summary of trainee responses suggest that attitudes somewhat generally changed to those which were consistent with the response pattern of New Nursery School staff. There is some indication that trainees in their response uncertainty (on the TIB) may be revealing flexibility in dealing with authority.

Descriptions of this scale and uses can be found in the following reports:

Harvey, O.J., Conceptual Systems and Attitude Change. In Carolyn W. Sherif and M. Sherif (ed.) *Attitude, Ego-involvement and Change*, New York: Wiley & Sons, 1967, pp. 201-226.

Harvey, O.J., System Structure, Flexibility and Creativity. In O. J. Harvey (ed), *Experience, Structure, and Adaptability*, New York: Springer, 1966, pp. 39-65.

Coates, Carolie, Interim Report: Description and Assessment of Teacher Retraining Program, 1967. Denver: Jefferson County Schools, 1968.

THIS I BELIEVE

This scale is an indication of openness - closedness of trainee beliefs. Responses to the semiprojective sentence completion test are classified into four systems along a concreteness - abstractness continuum. System One individuals, most concrete, are characterized by a *positive* orientation toward extrapersonal referents (God,

institutional authority). They are highly superstitious, religious, absolute, closed in beliefs, evaluative, and dependent on authority. In contrast, System Two persons are *negatively* oriented toward authority. They are uncertain, distrustful, rebellious. Systems Three individuals are oriented toward establishing and maintaining intragroup consensus as a step toward dependency and control of others. Most abstract are System Four individuals. These persons are more impersonal and more oriented toward information seeking and problem solving for intrinsic rather than extrinsic rewards.

Teacher attitudes were assessed before and after the trainees' participation in the Institute.

Consistent with Harvey's norms (from a sample of 1,400 TIB's administered to primarily college students; 1966), System One individuals were predominant among NDEA Institute trainees. Of 87 individuals who completed the pre-test (Fall, 1967), 62 (71%) were scored as *One's*; 43 of 77 (56%) persons completing the post-test (Spring, 1968) scored as *One's*. No individuals were classified *abstract* in the pre-test; three individuals (4%) were considered in that category. Trainees, as seen from fall administration, were most *concrete* possibly resulting from their initial uncertainty about the course and their distrust of testing. Several individuals' responses were difficult to assign to one system alone. On the pre-test, mixed classification was necessary for 22 persons (25%). A greater proportion, 28 persons(36%), being classified as *mixed* on the post-test suggest an openness of trainees in dealing with persons perceived as authority figures (such as the project director). Seven persons who continued in the course throughout the year refused to complete pre- and post- TIB testings.

The tentative nature of Harvey's research makes it premature to interpret individual movement from a Test 1 to a Test 2 classification.

Two Inventories were administered to Institute staff who were familiar with the New Nursery School. The responses were then classified as being either consistent or inconsistent with Institute staff philosophy.

BRINGING UP CHILDREN

The Bringing Up Children Inventory (BUC) was a 45-item questionnaire which required *Yes*, *?* or *No* responses. Several trainees began late or withdrew early from the program; thus, responses were not available from each trainee. Of 72 trainees who completed pre- and post-tests, 40 (56%) changed toward child-rearing attitudes which were more consistent with New Nursery School philosophy; 11 (15%) persons made no change while the overall change of 21 (29%) persons was toward a philosophy that was inconsistent with New Nursery School philosophy. Over half of the individuals appeared to have identified with and moved toward attitudes of New Nursery School staff who represent recent trends in early childhood education. More specifically, the BUC administration resulted in at least twelve trainees responding finally in a manner more consistent with New Nursery School staff in six statements:

45. (20 trainees changed) *The most significant function of the family is not to provide physical care and nourishment, but to give the child a proper setting for the development of his personality traits.* (YES)

14. (15 trainees changed) *"Babbling" develops free play of vocal mechanisms of the child.* (YES)

31. (13 trainees changed) *A child with superior mental ability is apt to be emotionally unstable.* (NO)

5. (12 trainees changed) *It is important to follow the very young child's own rhythm in determining the time between feedings, and then to modify the schedule as the child grows older.* (YES)

9. (12 trainees changed) *In this culture, children's early habits are directed almost entirely by women.* (YES)

27. (12 trainees changed) *Table manners are less important than the attitude that eating is a thoroughly pleasant process.* (YES)

Responses to six items were changed by at least twelve trainees to be less consistent with New Nursery School staff:

4. (14 trainees changed) *Organizing clubs in childhood should be encouraged rather than discouraged.* (?)

33. (14 trainees changed) *Since it is natural for a child to be active, an inactive child is either sick or inhibited.* (YES)

20. (13 trainees changed) *A child should be punished for swearing.* (NO)

37. (13 trainees changed) *An active child has more promise of develop ng into a normal adult than has a quiet child.* (?)

8. (12 trainees changed) *In playing games with an adult, a child should be excused from following the rules of the game, and should be permitted to win.* (NO)

38. (12 trainees changed) *A child's ideals have to be similar enough to his conduct for him to feel he has a chance of reaching the ideals.* (YES)

I-E SCALE

The I-E Scale was a 29-item, forced-choice (among two) Questionnaire which was an indication of personal behavior being influenced by internal or external controls. Institute staff again categorized responses as being either consistent or inconsistent with the New Nursery School goal of intrinsically motivated learners.

Seventy-four trainees completed the same form in the fall and spring. Of these, 31 (42%) indicated a change toward internal control. Greater reliance upon external controls were indicated by 33 (45%) persons; no global attitudinal change, nine (13%).

Specifically, four item responses were changed in post-testing to a *consistent with the New Nursery School staff* stand:

18. (23 trainees changed) *There really is no such thing as "luck"* (b)

3. (14 trainees changed) *There will always be wars, no matter how hard people try to prevent them.* (b)

24. (14 trainees changed) *A good leader makes it clear to everybody what their jobs are.* (b)

17. (13 trainees changed) *By taking an active part in political and social affairs the people can control world events.* (b)

22. (13 trainees changed) *With enough effort we can wipe out political corruption.* (a)

Even without the benefit of statistical analyses, inspection suggests that the instruments were non-discriminating with this particular group of trainees. Responses to all scales demonstrated that it is possible to change behavior - at least that which is expressed - toward that which is acceptable at the moment. In this Institute, trainees generally responded more consistently with Institute staff at the end of a nine-month course. Lasting change is yet unknown. Change in daily classroom behavior, is slow and unpredictable from the results on the attitude scales. Perhaps, seeing is not behaving.

The *SimulAC*

The *Simulated Lesson Analysis Chart* (*SimulAC*) was developed as a learning device for trainees as well as a source of information about the recorded lessons for Institute staff. Trainees completed a *SimulAC* individually tailored for each training unit[1] as a means of describing and critiquing in a standard way the taped learning episode. Generally, trainees viewed each tape two or three times in order to complete the *SimulAC*.

During the first review of the videotape, trainees labeled the videotaped episode, indicated its length in time, and checked whether or not the listed episode characteristics (such as materials, management, and strategies), behaviors of the Learner (child) and Facilitator (teacher) and indications of affect (enthusiasm, warmth, responsiveness, disgust) were present. Additional reviews allowed critiquers to rank training unit objectives, tally terminal behaviors and offer specific suggestions for lesson improvement. Excerpts of the instrument and trainee responses to it follow:

TAPED EPISODE AND ITS LENGTH

Check episode which was taped: ___ A ___ B ___ C ___ D ___ Variation
If variation, describe it briefly:
Check length of episode: ___ less than 3 minutes; ___ 3-5 minutes;
___ 5-7 minutes; ___ over than 7 minutes

With one exception, the videotaped lesson within each training unit was that episode which appeared on 16mm film. A substantial majority of trainees videotaped the *filmed* episode for thirteen of the training units. Videotaped episodes different from those filmed were submitted by a majority of trainees for only two training units (XIII, VI). Trainees completed one of two episodes for Unit X which were different from the filmed episode. Materials for Episodes A and D (in Unit X) did not require preparation; also, the filmed episode (C) was considered too difficult for many of the children.

Although encouraged to do so, few trainees videotaped variations of the suggested learning episodes. Training Unit VII produced the most variations; eight of 71 responding trainees changed lesson procedures to suit their particular group of learners. Only five training units (I, II, III, IV, VII) resulted in more than one trainee's videotaping a lesson variation.

[1] Training Units are listed by title in Appendix A.

Length of lesson was recorded beginning with the third training unit. The tendency was for short rather than long videotaped episodes of learning; in fact, videotaped lessons tended to be too short to allow adequate learner involvement and lesson critiquing. The shorter lessons were contrary to a prediction that trainees would tend to teach long lessons. For fourteen of the units, approximately fifty per cent of the recorded lessons were from three to five minutes long with a somewhat lesser proportion recording lessons which were less than three minutes long. Units IX and X were an exception with fifty per cent or more of the trainees recording lessons which were less than three minutes, and a somewhat lesser percentage recording lessons three to five minutes in length.

MATERIALS AND EQUIPMENT

SOURCE: ☐ Learner Made ☐ Facilitator Made ☐ Commercially Made

MANIPULATOR: ☐ Learner ☐ Facilitator
If both learners and facilitators manipulate materials, write the appropriate fraction for each (e.g., Facilitator 1/4, Learner 3/4)

ITEMS:
- ☐ Chalkboard
- ☐ Charts and pictures
- ☐ Slides, films, transparencies
- ☐ Phonograph, tape recorder, Language Master
- ☐ Textbooks, workbooks
- ☐ Individual story books
- ☐ Real objects (e.g., live animals, artifacts,_____)
- ☐ Special teaching aids (list:_____)
- ☐ No materials or equipment

Materials and equipment being used were difficult to observe and describe from a videotape recording unless the critiquer had viewed the lesson in person. Knowing source and manipulator of items, as well as specific materials used, in teaching, proved to be of great value in group discussion and individual trainee conferences. Some teacher discovered, for example, that they rather than learners usually manipulated learning materials during the teaching of a specific lesson. More participation by learners in handling specific learning materials was indicated.

LESSON MANAGEMENT

NUMBER:
- ☐ Five or more learners in group with teacher
- ☐ Five or more in group with aide
- ☐ Five or more in group without teacher or aide
- ☐ Four or fewer with teacher
- ☐ Four or fewer with aide
- ☐ Four or fewer without teacher or aide

ARRANGEMENT:
- ☐ Individual learner with teacher or aide
- ☐ Individual learners independently involved in separate tasks
- ☐ Individual learners independently involved in <u>same</u> task
- ☐ Learners working together with same task

Observing and describing the management of the classroom revealed the number of learners in a group and how these learners were arranged. With some exceptions, lessons were videotaped of learning groups having four or fewer learners with a teacher or aide. Teaching regularly with small groups was new in most classrooms. Trainees generally arranged

the learners in *parallel* activities; in fourteen of the sixteen training units, most learners worked *independently* at the same task. Exceptions were training units V (where most learners *worked together* at the same task) and XIV (where most trainees worked with only one learner).

STRATEGIES

- ☐ Self-correcting: Tasks immediately inform learner of consequences
- ☐ Self-pacing: Tasks proceed at rate determined by learner
- ☐ Autotelic: Learner remains with task after facilitator leaves or allows learner to take over

The strategy most often identified (in twelve of the sixteen units) was providing learning activities which were *self-correcting*, although trainees planned for and were observed teaching activities which were *self-pacing* as well, (prominent in four units). Few trainees observed on their videotape teaching which was *autotelic* - that is, activities which resulted from intrinsic rather than extrinsic motivation. An autotelic activity is one which is chosen for its own sake rather than to obtain rewards or to avoid punishments. Since this strategy was rarely implemented and observed, it is possible that the trainees did not fully understand how to implement the underlying concept of child-chosen activities, even though they might have considered them to be most desirable. Modifying behavior in accordance with new ideas and attitudes may require more time and concentrated effort than allowed by the initial project.

LEARNER AND FACILITATOR BEHAVIORS

Process behaviors of the Learner (child) and Facilitator (teacher) were also observed with taped lessons.

I. LEARNER	L.		F.	II. FACILITATOR
Enters scene		1		Enters scene
Initiates conversation, talks	*	2		Is silent - awaits learner talk
Talks with facilitator		3	*	Responds to learner
Listens to facilitator		4		Encourages learner
Responds to facilitator		5		Initiates conversation, talks
Smiles, oohs, ahs		6		Smiles, oohs, ahs
Bites lip, clenches fist		7		Bites lip, clenches fist
Yawns, appears tired		8		Yawns, appears tired
Withdraws, cowers		9		Swat, spank, pinch
Voice is quiet, fearful		10		Voice is soft, encouraging
Voice is loud, confident		11		Voice is loud, stern
Initiates activity	*	12		Initiates activity
Explores, experiments	*	13		Directs activity
Discovers, solves problems	*	14		Reduces tension (solves soothes)
Finishes task	*	15a		Requires that task be finished
Leaves task unfinished		15b		
		16		Evaluates episode achievement
Does what <u>he</u> wants	*	17	*	Allows learner to do what he wants
Does what <u>others</u> want		18		Tells learner what to do
Leaves scene		19		Leaves scene

*These behaviors were emphasized in lesson materials.

The Learner and Facilitator Behaviors were tabulated and inspected for those which were *most observed* by trainees and an independent observer (from the Institute staff).

The independent observer/critiquer tended to observe (and record with check marks) more behaviors than did trainees possibly due either to lack of trainee time or observational acuity. The three most frequently observed behaviors in each training unit were then selected.

The three behaviors *Most observed* by the trainee in sixteen training units dealt with verbal interaction: 4 (Learner) *Listens to facilitator* was predominant in fifteen of sixteen units: 4 (Facilitator) *Encourages learner* was seen by trainees in eleven of sixteen training units: and 5 (Learner) *Responds to facilitator* was observed in all of the seven units in which it was included on the *SimuLAC*. The Institute staff observer/critiquer was generally in agreement. She concurred that these three behaviors were obvious and checked their presence at approximately the same rate as the trainees. But this observer/critiquer saw other behaviors as more prevalent.

Of the three *Most observed* behaviors by this independent observer, one dealt with verbal interaction and was the same as the one most observed by trainees; 4 (Learner) *Listens to facilitator* was predominant in ten of sixteen training units. The second *Most observed* behavior - 18 (Learner) *Does what others want* - was prevalent in nine of sixteen training units. This behavior implied task motivation and the *SimuLAC* results suggest that learners were often seen as motivated in tasks by external rather than internal means which again is inconsistent with an autotelic activity. The third *Most observed* behavior - 15 a (Learner))*Finished Task* was indicated in half of the sixteen training units.

In general, the trainees and independent observer/critiquer were in agreement regarding an inspection of most observed learner and facilitator behaviors. The critiquer/observer noted more behaviors than trainees; subsequently, varied behaviors became *Most observed*. It is apparent that the classrooms of these trainees controlled rather than allowed choices of learners.

AFFECT

The affective behaviors assessment developed by the trainees and the Institute staff gave some general indications that the trainees became more aware of the positive aspects of their behavior and interaction with the children in their classes. The assessment required the trainees to observe teachers and learners on the videotapes they made (with Units I, II, III, XV, and XVI) for qualities of Enthusiasm, Warmth, Responsiveness, and Disgust. Facilitators were to make their own judgments about what they saw or sensed. They were given no definitions of the qualities during Units I, II or III.

Place a check (✓) in the appropriate box (right columns) to indicate the general tone of the taped lesson.

AFFECTIVE TONE	LEARNER		FACILITATOR	
	Verbal	Non-verbal	Verbal	Non-verbal
1. Enthusiasm				
2. Warmth				
3. Responsiveness				
4. Disgust				

However, definitions, compiled by the staff from the responses to these units were revealed for use in Units XV and XVI. The trainees in this way helped to develop their own definitions for the qualities.

Affective Concept	Definitions	
	Dictionary*	Your Comments
Enthusiasm	Intense or eager interest; zeal, fervor	Inspiration; eagerness; interest; willingness; excitement; fun; zest; participating; joining in; anxious delight; pleasure, happiness.
Warmth	Excitement, strength, or vigor of feeling; enthusiasm; ardor; zeal	Smiling; special acknowledgment to individual or group; rapport; close relationship; friendliness; showing regard, love, honesty and personal interest; accepting child for what he is.
Responsiveness	Responding; answering easily to suggestion or appeal	Listening attentively; actively participating in verbal or physical ways; choosing (desiring, wanting, willing) to reply; identifying a problem or situation; (could respond with warmth or disgust).
Disgust	Sickening distaste or dislike; deep aversion; repugnance	Frowning; sneering; displeasure; dislike; disapproval; negative attitude; rejection; "fed up;" intolerance; annoyance; upset.

*Webster's New World Dictionary of the American Language, College Edition. Cleveland: World Publishing Company, 1966.

The trainees were much more alert to verbal behaviors than they were to non-verbal ones. Uniform numbers of responses to these five assessments (Training Units I, II, III, XV and XVI) were lacking because of the drop in enrollment during the year and incomplete or lack of response to the assignment. The assignment also served to demonstrate the importance of supporting behavior to the facilitator's role and the resulting verbal and non-verbal responses of the children. Teachers reported that they became more aware of these sometimes subtle cues to attitude and behavior and they attempted to become sensitive to these cues in the behavior of the children. Thus, the instrument became more of a worksheet for trainees to encourage a greater attentiveness to affective interaction.

The affective quality most observed was *Responsiveness* which represents a positive feature in the training program. *Facilitator: Verbal and Non-verbal* indications of *Warmth* were also often noticed. Learners were commonly seen as being *Enthusiastic*. The distribution of responses remained fairly consistent in the fifteenth and sixteenth training units even after definitions were developed.

Ranking Objectives of Training Units

Rank the following overall episode objectives using "1" to indicate the objective which is most evident in the lesson and "4" for the objective least evident.

_____Improve self image
_____Increase sensory and perceptual acuity
_____Increase language skills
_____Increase problem solving and concept formation abilities

Trainees were asked to analyze each training unit in the light of the New Nursery School affective and cognitive objectives. This was accomplished by their ranking from "1" for *objectives most evident* to "4" for *objectives least evident* which were present to some extent in each unit.

Although Institute staff found it difficult to isolate one objective as being more or less important in a particular training unit, the trainees saw the development of skills in problem solving and concept formation as being the most prominent intention in the training units whereas self concept improvement was seen as the least prominent.

Cues such as unit titles (see Appendix A) may have influenced responses. Also, the manifestation of objectives was more easily observed in problem solving (such as completing puzzle) than in self concept improvement (such as the feeling of success accompanying the completing of the puzzle). In addition, hurried completion of episodes toward the end of the course may have caused some perseveration of response.

Members of the Institute staff visited all of the training sites. This personal contact helped to bring the Institute closer to the participants.

Classifying was one skill encouraged in the learning activities.

TERMINAL BEHAVIORS

The terminal behaviors listed on the third page of the *SimuLAC* were necessarily different for each training unit. The attempt was to describe goals or terminal objectives for each learning episode, requesting each trainee to tally each time a learner or facilitator demonstrated the terminal behavior by verbal or non-verbal means. An example of one such tally sheet (from Training Unit VII) is reproduced below. Note that some boxes are crossed out. Not every terminal behavior need be interpreted in verbal and non-verbal terms for both learners and facilitators on a given lesson.

Observe the learner and facilitator behaviors. In the right column, tally each indication (in action or comment) that the task (defined as a terminal behavior) has been accomplished.

EPI-SODE	TERMINAL BEHAVIORS*	LEARNERS		FACILITATOR	
		Verbal	Non-verbal	Verbal	Non-verbal
A1	The learner can count to ten with an adult pointing to each object counted.				
	The learner can count beyond ten with an adult pointing to each object counted.				
A2	The learner can point to each object as he counts to ten without help.				
	The learner points to each object as he counts beyond ten without help.				
B	Cut out numerals are correctly placed on numeral outlines on a board.				
	The numerals are placed in counting order.				
	A numeral is named.				
	A correct response is given to the question, What numeral is this?				
C	A numberite puzzle is completed.				
	A numeral is named.				
D	The number of objects needed for a given group of persons is solved.				

*As defined in each learning episode.

Specific Observer (Critiquer) Comments.

AFTER VIEWING:
1. Describe two aspects of this lesson (as taped) which were done well.
2. List two suggestions for improving this lesson (as taped).

The above questions appeared on the *SimuLAC* as a last section. Observers were reminded that not only is it important to acknowledge positive as well as negative aspects of a videotaped lesson, but also it is helpful to include only one or two suggestions for improving a lesson. Trainees who are bombarded with many lesson aspects to correct may actually correct none; paralysis of analysis occurs.

The first learning episode submitted from each trainee received a narrative critique.

EVIDENCE OF CHANGE IN TRAINEES

Since the primary purpose of this project was to test the feasibility of an unusual teacher-training process emphasis was not placed on gathering and analyzing data regarding the mastery of content or subject matter by the trainees. Nevertheless, a great deal of information was available from the *SimuLAC* records on each trainee's performance. Thus, by using each trainee as his own control, it was possible to make some comparisons of his own ratings of his video-recorded performances with Institute staff ratings of the same behaviors. Furthermore, the ratings on the trainee's first unit were compared with the ratings on the last unit he completed.

Such comparisons were not suitable for statistical tests of significance of difference because of their quite subjective nature and because group means were considered to be meaningless. Certain salient portions of the *SimuLAC* were selected for inspection and comparison. These portions included the categories dealing with lesson management, lesson strategies, teaching/learning behaviors, and affective components.

The mastery of each learning episode's terminal behaviors was a prerequisite for beginning subsequent episodes so that this much content learning was assured for all. However, the style of conducting a lesson and facilitating learning was of greater importance. Generally speaking, those trainees who completed more than three of the sixteen units showed movement toward more response-ability as lesson managers; that is, they were more responsive to the expressed or manifest needs of their learners. The lesson strategies revealed increasing amounts of guided discovery and inquiry methodology. The teaching/learning behaviors and affective components became more learner-centered, characterized by greater acceptance and warmth toward the learner, at the end of the trainee's experience than at the beginning. The trainees' ratings were more nearly like our critiquers' ratings at the end than at the beginning of the project.

Of course, some of this growth was probably due to a growing familiarity with both the training process and with the children as the year unfolded. However, there was substantial evidence that the trainees understood the rationale of an autotelic responsive environment procedure and, in some cases, had internalized the philosophy sufficiently to transfer it to other parts of the early childhood curriculum not included in the training units. In the opinion of the staff, trainees who completed the entire course were more amenable to change, more highly motivated to improve their classroom practices and more receptive to the responsive environment notions than the trainees who dropped out. On the other hand, there were many classrooms where our staff visited which seemed to revert to large-group, highly-structured teaching as soon as a micro-lesson was completed. As stated in the original proposal, it was believed that even these trainees, having practiced and been reinforced for individualizing instruction, would become increasingly responsive facilitators for young children's learning.

The *SimuLAC* proved to be more useful as a training vehicle than a data collection instrument. The most useful conclusion revealed from use of the *SimuLAC* was the variation in what trainees saw - or more correctly, how little most trainees observed, even when observing their own videotaped performance, replayed shortly after recording it. More attention to the development of observational skills in teachers was indicated.

PROJECT EVALUATION

Standard response sheets were sent to each trainee with the first eight training units and with the sixteenth unit as a project evaluation. This continuing feedback, coupled with unsolicited comments in trainee letters allowed Institute staff to revise procedures and training materials to meet trainee needs.

Trainee comments were elicited on such topics as ease and difficulty of the course units, those episodes which were of most help, clarity of unit instructions, and their understanding of various other aspects of the course.

COURSE EASE AND DIFFICULTY

When asked what the easiest part of this course was, trainees responded variously. Typical responses follow:

Trying the episodes . . . . Actually doing the episodes with the children . . . . Working through the lessons . . . . There was no easiest part; I had to do some deep thinking on each lesson . . . The actual filming of the lesson (the most frequent response) . . . . Getting enthusiastic about it . . . . There really isn't any easy thing because we are so rushed for time. We've had the machine once for one day and have to tape and send the lesson on. There just is no time . . . . The mailing . . . . Actually doing things with a small group; this I can do too seldom . . . . It gives me a feeling of warmth and achievement . . . . Reviewing the film clip . . . . Making the drawstring bags . . . . Gathering the materials needed to present the lesson . . . . To do the filming and the fun from the lessons. It is interesting to watch the children respond to the situations and listen to their responses. Also it is fun to see and hear yourself and quite revealing to see and hear yourself as the children see and hear you . . . . Reviewing the written materials.

In answer to a request for the most difficult part of the course, trainees were generally agreed that the equipment was difficult to obtain when needed, insufficient time was available to adequately experience microtraining (5 R's) and units contained too much reading material. Specific comments follow:

A learner who can do as well as teach others how to do is a positive evaluation of the program.

To schedule the videotaping machine . . . . SimulAC -- the third review of the tape. My tally marks have not yet agreed with the one sent back. I think it is a waste of time. I always get to watching some phase or person and forget to tally . . . . Finding time for the reading and paper work . . . . Viewing to critique and evaluate the lesson that I have just taped . . . . All the reading -- it is just too time consuming . . . . Waiting for the unbreakable equipment to be fixed after it is broken. . .

Being satisfied with the performance and not constantly doing it over . . . . Organizing the materials for the lessons and also filling out the forms to be sent back . . . . Videotaping myself on the tape -- with others around; I am self-conscious . . . . To use correct and precise English so that the children can hear and repeat it.

MOST HELPFUL UNITS

Trainees responded that the most helpful training units in their classrooms were (in decreasing order) sixteen, one, nine, fourteen, and fifteen. Training unit six was mentioned least as a "most helpful" unit.

CLARITY OF INSTRUCTIONS

Unit directions written by the curriculum writer were considered *clear and exact*. Over 95% of the trainees who returned *Yes/No* response forms for the first (84 forms returned) and sixteenth (45 forms returned) training unit responded that they found instructions to the trainee for conducting the learning episodes, as well as instructions to the learner within a specific learning episode, to be quite intelligible. Narrative comment on the response sheets and in letters, however, suggested that while trainees were clear as to the expectations within each training unit, they were not always clear on the process to be performed, especially when that process was interrupted by obstacles.

UNDERSTANDING COURSE ASPECTS AND CONCEPTS

Certain words representing key aspects and concepts in the course were listed on a response sheet sent with training unit five. Trainee comment generally failed to grasp the essential nature of each course component and concept and its relationship to the course as a whole. Occasional insightful comments emerged from the trainers which were used in later on-site visitations as a course review:

TRAINING UNIT . . . *complete, informative, and useful . . . four separate, related and specific lessons which meet one general objective*

LEARNING EPISODE . . . *a specific learning activity . . . one of four phases of a central goal or objective . . . new experiences we go through*

16MM, FILM CLIP . . . *proof that it can be done! . . . Somewhat representative of the unit to serve as a model for the persons in the program.*

VIDEOCORDER . . . *seems to be working now - hot dog! . . . I won't put it in writing . . . that magic machine that picks up our secrets and entirely misses our success . . . when you record it's good; when you play it back it's awful.*

MICROTEACHING . . . *you certainly get a view of yourself . . . a scaled-down sample of teaching . . . the 5 R's: record, review, respond, refine, reteach.*

CRITIQUING . . . *to provide feedback information . . . a means of evaluating your teaching of a lesson . . . what my teaching aide wished there weren't any of . . . encourages critical analysis . . . I always dread this because I'm so tired at the end of the day.*

LEARNER . . . *the child . . . children participating with the teacher . . . the teacher, too.*

FACILITATOR . . . *the teacher. . . learns new ways of improving*

language by changing her own language patterns . . . wishing we had facilities to do the course right . . . one who initiates games, songs, learning experiences, and who carries out these activities . . . why not call a teacher a teacher? I understand facilitate, but facilitator is surely a mouthful; sometimes, it's hard to know who is facilitating whom . . . one who provides the materials and guides the children in accomplishing a goal.

RESPONSIVE ENVIRONMENT . . . *a setting that responds to the individual needs and gives a feeling of accomplishment . . . seems next to impossible without temporary set-up . . . place where a child may be actively involved in reinforcing learning concepts . . happy, easy atmosphere . . . curiosity can be satisfied.*

EXPLORATION/EXPERIMENTATION . . . *when children are allowed lots of freedom to investigate for themselves. . . takes time and space . . . a good way to describe what we are doing in this course . . . a way to find out about the world; it is more effective than telling.*

EFFECTS ON THE INSTITUTION

Any innovative program has profound effects on an institution if its operation is contrary to established procedures. Among the college offices affected by this NDEA (Title XI) Institute were the Academic Dean, the Graduate School, and the Registrar.

The Academic Dean's office assisted in a course write-up for the *General Catalog*, the first such course which has offered on-campus credit for students enrolled (and residing) out-of-state:

> ID 222 Remote Training of Early Childhood Educators.
>
> Administered by the Child Study Institute, this course is an interdisciplinary approach to training educators of disadvantaged children while in their school setting. At least sixteen learning episodes are modeled and generated during three quarters. Continuous dialogue is maintained by on-site visits, telelectures, films, videotaped lessons (microtraining), and written materials.
>
> (This description appears in the 1968-69 Colorado State College catalog.)

Such action was eventually supported by the Graduate School which approved the course's being made available to graduate students for a period of over two successive quarters.

Also novel within the Graduate School is an audio-visual final *examination* which required that an original learning episode be created by each student. Each trainee wishing credit for the course developed, wrote, and taught (while videotape recording) a learning episode. This written and videotaped *final* is available in the Graduate office as a *living* demonstration of planning and teaching competence at the end of the Institute.

The usual procedures of registration were challenged, especially as course objectives suggested a *variable registration* (registering for the amount of work completed in the course). Up to five hours of credit were available for the course. Allowing students to move at their own pace, receiving credit for only what they had completed by June 1, 1968, is *variable registration*, which is an exception to usual college registration policies but was considered necessary to facilitate

the individualization of instruction for college students.

When training was somewhat self-pacing and credits were contingent upon accomplishment of program objectives, numerous individual differences arose. Table II illustrates the variation that was allowed in the Institute.

TABLE II

DISTRIBUTION OF GRADUATE AND UNDERGRADUATE TRAINEES AND CREDITS EARNED

COLLEGE LEVEL	CREDITS EARNED 0	1	2	3	4	5	TOTAL
UNDERGRADUATE	11	0	3	5	0	14	33
GRADUATE	23	1	4	8	0	32	68
TOTAL	34	1	7	13	0	46	101 101*

*Fourteen additional persons were enrolled in this course: nine dropped soon after enrolling; five enrolled in a non-credit status.

Such variation in student achievement is usually present, yet difficult - if not impossible - to demonstrate with usual procedures. The Institution, often seen as stifling innovation, can allow within its necessary limitations, as shown in this Institute, procedural alternatives which foster educational innovation.

TRAINEE/TRAINER COMMENTS

FROM TRAINEES

Trainees were encouraged to comment throughout the program on the *Evaluation* sheets mentioned earlier. In addition, unsolicited comments came in letters and on back of the various response instruments. A more concerted effort to elicit project comment was a request sent with the ninth training unit. Trainees were asked to comment about how the program was progressing. Ten topics were suggested as charted below with predominant responses indicated.

TABLE III

MID-COURSE COMMENTS BY TRAINEES CATEGORIZED BY USUAL RESPONSE TO SUGGESTED TOPIC

TOPIC OF COMMENT	USUAL RESPONSE OK	So-So	Bad News
availability of written materials	(9)		
availability of learning materials	(9)		
availability of equipment			9
access of useful references			9
communication with Colorado State College	(9)		
communication with other trainees		9	
usefulness of materials sent	(9)		
handling of equipment		9	
keeping			9
flexibility of operation	(9)		

Trainees were generally supportive of the Institute in operation.

I have enjoyed the written materials very much. It is always interesting to get new ideas and ways of using the available material and ideas from new materials. Two of our drivers have learned to run the machine and one of them has helped in filming our tapes. I feel that the materials sent have been very useful, especially so since we have two new aides and our NYC students have been interested in what we are doing.

Our parents enjoyed viewing a film of their children taken one day of their indoor and outdoor work. Through this medium they received a better idea of what we are doing and of what our work or 'play' as they call it, is like. Many have been unable to spend a day in our center.

Each time we get the machine it is a high interest point for the pupils, so the taping situation is really not as natural as we would like it to be. We are not able to retape any lesson which we do, but I try to reteach any episode that I feel does not result in a good learning situation and I used your corrections on my first tape which arrived last Friday.

Most teachers and aides lacked sufficient time, meterials, and equipment. Several had large classes with only a teacher in the classroom.

Slowly, trainees learned to be responsive to directions set by learners rather than be tied tightly or rigidly to one set of procedures.

This course takes much more time than I thought it would. We were told that the time required outside of school time would be very little. This has not been true. To read the materials sent -- at least twice --, to view the films, assemble materials needed, and to film takes at least two hours for each episode.

The primary problem has been availability of the equipment. It has been broken down frequently and has not always been handy.

Another videocorder would have helped us keep on schedule.

My only complaint would be that films might be available ahead of time of producing the tape. Also I need more time for critiquing sheets.

The written materials are very helpful in this course, but we have no references or library nearby. The videotape machine is not always available and when I do get it, it either breaks down or they are hurrying me. If this is only half-way in the course, I guess that I'll have to give up.

Our equipment breakdown was very hard on all of us. We were compelled to tape six lessons at once. We have felt pressure of time

and space limitations at our school. We tape in a narrow room at the end of a very long hall. The environment is not a natural one for the children and they react accordingly. A regular kindergarten uses my room until 11:30a.m.. My children arrive at 11:00 a.m. and we go to the library for a half hour. Therefore, we cannot set up the equipment in my room. We would like at least three days with the equipment because we are really pressured to finish and view it in just two days. The transporting of the equipment has been a little difficult. Orr custodian is complaining of a 'tired back'. But, all in all, it's been a worthwhile and challenging experience.

However, most trainees managed to overcome these obstacles and completed training units. They commented that Institute procedures and materials were especially helpful in the improvement of their teaching performance.

Training units were designed for teachers to provide learning activities which involved children in problem solving.

Each time it gets easier to set up the equipment. Maybe we're getting smarter....I have fully enjoyed taping my lessons. I like all of the lessons. They are all well done and need little or no improvements. At first our children were a little shy of the machine and camera and as you noticed in this last filming they seem to be more relaxed -- or was I the one who was more relaxed? I'm working on my pronunciation of words as to make myself clearly understood with little children. I hope to improve in my future lessons....It has not been a problem to have the equipment moved from one place to another. Ideas from the written materials have been used in the classroom and have proven very effective....All of the training units have been most helpful in my center, especially where I see others presenting a lesson with children in the film....I play games using a box in which we place items for feeling. Using the same box, children identify items smelled, but not seen. I gather numerous foods, as well as items listed. The only child who misnamed an object was my own daughter. She called the Holstein cow a bull because it had horns, and I insisted on correcting her because we are ranchers. (Wasn't that a good joke on me?) This woke me up concerning the things we adults take for granted about what children know.

Where communication between Colorado State College and trainees - as well as communication among trainees - existed, the course became more meaningful and its objectives more likely to be realized.

Communication with the Institute staff was enjoyable, prompt, and precise. There was, however, very little communication with the other trainees....Through this course we have been able to communicate with the other trainees by viewing the film clips together and discussing them. The materials sent are very useful to use as we try to improve ourselves and use these materials with out children....Because of the informal manner in which this course was presented, communication with the Greeley staff has been easy. I have managed to exchange ideas and discuss some of the films with

some of the other trainees here and this has been generally helpful.

One eventual objective, of course, was the trainee's initiating of ideas and creating of materials and procedures to carry them out. Identifying other learning activities within the classroom was a start.

Another thing that I personally feel might make an interesting and worthwhile lesson or series of activities is left and right. ....In my episode, I used a turnip the children have tasted before, with the flannel board story "The Farmer and the Turnip". I also used Donald and Tommy because they're two out of the three who don't like to eat turnips. The rest of the children will eat turnips after the story.

Two letters from trainees summarize feelings expressed by many during the course.

Dear Gerry,

The written materials come in good time. We read them over and discuss them with each other a bit. "This is something that would work. Let's try some of these ideas. Our children have all mastered this technique."

We try out most of the things with the children. We decide that this is what we will do -- or I say this seems like a good idea. Then we wait, and wait, and wait. We forget, or perhaps by now don't really care. And suddenly here comes the film, with or without the Videocorder. If it is with the Videocorder, the note will say, "Please see these and rush them to next school." But we have three teachers to see it, each with a different schedule, and different free time. We rush and move it along. Then we rush and get our Training Unit on tape and help the next person to get theirs done. After it is done, we remember the things that we had planned to do. The children who were talking like little chatterboxes, have absolutely nothing to say and the Facilitator is left chattering to them so that there will not be big empty spaces on the tape.

But it is fun. Each of us feels that we have learned a good deal -- especially not to begin with "Mary, would you like to ..?" or "O.K.?"

We get bright, useful little notes from "Gerry and gang" and go back and read the material again. Isn't it surprising how much more it means to us the second or third time around AFTER we have sent in all of our sheets and finished our tapes?" We suddenly remember how to thread the machine, and how to be sure that it is on "stop" before turning it to "rewind" or to "play".

And, oh, yes, WE are always "on schedule." It is the other fellow that is holding up things, except perhaps the time we had it during the Thanksgiving holidays, or just before Christmas, or --- some other times!

Now "briefly" with my tongue out of my cheek, This is really learning. To have things when they can be used and in a manner that is instantly usable, is wonderful.

In haste as usual,

Mary Lopez

Dear Gerry,

I am withdrawing from the course, and I want to give you my explanations. I hope that some may be of help to you in the future, for I do think the program holds definite advantages for many teachers . . .

1. With so many demands on me as a lead teacher, I had to choose between doing one of two jobs, (teaching and being trained) and doing it well . . .

All of this I explain to you for this reason: If there are other Follow Through teachers with whom you are also involved, and if their program and its demands are similar to ours, then I think that this is too much to expect of teachers, to handle virtually two experiments simultaneously, and achieve a degree of excellence.

By the very nature of Follow Through, it is a program designed to implement new materials and innovative teaching techniques into the classroom. In other words, its teachers are already receiving help in improving their teaching. And, most probably, the teachers from the cities were chosen for their positions because they were the most progressive and open-minded.

Thus, it seems, the focus of your program should be the truly remote areas, and the really traditional teachers -- people who need stimulation, encouragement, and ideas.

2. Once we had outlined our goals for the year, I did not feel that I could afford the time to deviate from our curriculum and teach lessons that had no relevance to ones preceded or followed by them. Also, the lessons, I feel, are particulary appropriate for pre-school programs, in which more basic concepts are introduced, and in a different (to a degree) instructional situation.

3. Because I could not use the credit hours for the course, I had to consider the other advantage only, that of evaluation of my teaching . . .

4. We have had difficulty with the machines keeping them in working order and keeping them available . . . for the fifteen teachers, who are in . . . schools, scattered over the city. My own feeling is that the machines also take up much needed space in our already crowded rooms, and that teachers are most likely to use equipment that is in the classroom constantly, rather than that which has to be shared . . .

I felt that I had to make a choice this year between devoting full time to my position or being satisfied with less than perfection.

Sincerely,

Helen Whitebear

FROM TRAINERS

Institute staff who visited the training sites observed three areas which were difficult for the trainees: *implementation* of new ideas on a continuing basis; *recognition* of whether learners gained from a particular activity; and *delegation* of responsibility to perform classroom tasks. These three areas could be restated as classroom management, observational skills, and teacher/team (aide, custodian, administrator, parent) relations.

Most of the trainees handled classes as whole groups for instructional activities; small group activity was generally free play. Introducing inservice training procedures was a trial for these persons who found it difficult to instruct small groups while managing the activities of other learners. Providing numerous attractive learning activities for learner choice while busy with individuals and small groups was a new and difficult task. Thus, the several training units provided within the course which encouraged small group instruction were difficult to implement on a continuing basis.

Also difficult for many trainees was the ability to recognize if and when a learner had performed an intended task. Teachers and aides were often unable to focus on specific incidents of learning. Tied to materials, procedures, and pupil control, trainees also found it difficult to *look and listen*, observing individual indications of accomplishment. *Time to teach* was the cry while teachers spent much time being distracted by preparing to teach.

Accompanying the trainees' generally failing to implement and recognize was their ineptness in delegating tasks to others. Teachers and aides found work more easily done by themselves. Team efforts, the sharing of responsibility with other persons (ancillary, parents, custodians, bus drivers), was in practice because of program requirements rather than as the result of training programs which focused on division of responsibility and teacher/team relations.

All three of these needs were identified from experiences of the Institute staff with trainees in their respective local settings. They are interrelated and could fall under the general category of administration (or management). The first - *implementation* - concerns management of the physical setting and its objects (learning materials); the second - *recognition* - concerns management of learners, suggesting that as individuals are known via continuing observation the classroom may be continually redesigned to accommodate learner choices; and the third - *delegation* - concerns management of instructional staff, whatever their working title (administrator, nurse, parent, bus driver).

Similar observations of trainees were noted by staff at the Far West Laboratory. Trained observers from this Regional Laboratory visited classrooms in which Head Start Teachers were field testing materials and procedures developed during the NDEA Teacher Training Institute at Greeley.

PROJECTION

Trainee letters suggested the important impact of the 1967-68 NDEA Title XI Institute:

> *I have gained more ideas from the different episodes which will strengthen my curriculum next year.*

The application of new methods and materials by trainees during an extended period of this past year certainly promised a more lasting effect. Such distributed practice insures longer retention of the learned skills. This *momentum Effect* is maximized, however, only when teachers and aides learn that inservice training is most realistic and beneficial when accommodated within the teaching day.

> *The taping* ruins *the day at school. It pulls me from my* routine *and makes me feel like I'm taking school time for personal use.*

When considered as foreign and separate from the on-going instructional responsibilities, inservice education has least chance of effecting change. A *local* person such as a project director or curriculum supervisor who has been identified as a training specialist should be provided for continuing training on the job to all instructional staff. Serving also as liaison with the contributing academic institution, the local training specialist could distribute course contents and help overcome logistical difficulties. Trainee comments summarize difficulties which may have been due to lack of local trainers:

> *Keeping on schedule is hard and nervewracking....If only I could see the films when I'm ready for them. I don't always have access to references since there is no library close....It takes too long for the mail to reach me.... Primary problem has been availability of equipment....* Keeping on schedule is *almost impossible!*

Those centers which identified one local person to support our remote training efforts were generally those where the most efficient inservice program emerged, whether rural or urban. One rural center, with such a leader, had non-trainees completing sixteen training units. An urban center with a person assigned as a liaison to the Institute staff had all fifteen trainees complete all training units.

Recognizing the value of a *local* liaison person (i.e., training specialist) the Institute staff has submitted a proposal to develop continuing inservice training programs which incorporate such insights from this NDEA (Title XI) Institute during 1967-68. The proposal was to extend training services under an Educational Personnel Development Act grant.

Additional extension is possible in responding to the many requests for assisting other academic institutions in the development of alternative means of personnel training. Sharing this unique training alternative with interested agencies is a responsibility we have assumed.

Using this promising training process, the subject matter content is limited only by the imagination of the training specialist. Thus, a large repertoire of teaching/learning strategies for a wide variety of learners could be modeled and eventually mastered by the teacher trainees. The subject matter in the sixteen units used for this first venture into the remote training and supervision of teachers was sufficiently unique and identifiable that evaluation of the technique's effectiveness was facilitated. Ultimately, it would be quite desirable to develop a library

With Institute guidance, trainees set up responsive learning centers where learners could work independently.

of model film-clips and/or videotapes, such as those developed by this Institute which would demonstrate how outstanding teachers in different programs throughout the country manage various classroom learning situations and their corollary critical incidents.

INSTITUTE STAFF

DIRECTOR, *John Meier*, Ph.D., Director of the Institute for Child Study, Associate Professor of Psychology and Associate Director of the New Nursery School at Colorado State College. Meier originated the project, wrote the precis and proposal, and negotiated the grant award document. Presently on leave to the Rocky Mountain Educational Laboratory, he continued as part-time director, consulting with Institute staff to assure the completion of contracted tasks, including the preparation or required reports and design and conduct of follow-up or continuation studies that may develop.

ASSOCIATE DIRECTOR, *Gerald Brudenell*, M.A., Associate Director of the Institute for Child Study and Instructor of Education at Colorado State College. Brudenell coordinated the various aspects of the Institute, such as applicant screening, public relations, and general supervision of trainees. He conducted seven on-site orientation sessions and maintained continuity of contact with trainees through occasional on-site follow-up visits and involvement in critiquing procedures.

CHIEF CONSULTANT, *Glen Nimnicht*, Ed.D., Program Director of In-service Training at the Far West Laboratory for Educational Research and Development. Nimnicht and his associates at the Far West Laboratory aided in the development of in-service units, the critical review of units to insure quality control and the evaluation of the effectiveness of the program.

CURRICULUM WRITER, *Oralie McAfee*, M.A., Supervising Teacher at the New Nursery School and Instructor of Education at Colorado State College. Mrs. McAfee taught privileged preschool children for several years and environmentally deprived preschool children for the last four years. She modeled many of the learning episodes and wrote and directed the filming of them all. She also delineated the terminal behaviors for each unit which were an integral part of each learning episode's critique.

PART-TIME INSTRUCTORS, The following persons conducted lecture/seminar sessions during the one-week Greeley orientation session and prepared videotapes for use during the on-site orientation sessions for those trainees who did not attend the in-house session:

a. *Richard Perchlik*, Ed.D., Associate Professor of Policical Science, has completed several published studies on the sociology of poverty.
b. *Barbara Mickey*, Ph.D., Associate Professor of Anthropology, has done extensive research with deprived minority groups on the cultural aspects of deprivation.
c. *John Meier*, Ph.D., Associate Professor of Psychology, is concerned with child growth and development in deprived environments. Meier also conducted telelectures with the trainees in their respective locations.
d. *Oralie McAfee*, M.A., Instructor of Education, presented classroom procedures which have been demonstrated to be particularly effective with disadvantaged children.

CHIEF CRITIQUER, *Mary Tewksbury*, B.A., an experienced teacher who received additional training from program staff. Mrs. Tewksbury was supervised for reliability and validity in adhering to the specific lesson analysis procedures and criteria developed for each unit.

SECRETARY, *Delores Sawatzky*, B.A., accomplished numerous office duties including correspondence with individual participants and the organizing and mailing of the instructional packages.

Other teachers and aides were used to model many of the filmed learning episodes to vary the teacher identificand throughout the units.

On-site camera and videocorder operators have been other teachers and aides, job corps workers, bus drivers, parents and administrators whose tasks have been transporting and operating the videotape equipment as well as scheduling its use.

APPENDIX A

TEACHER TRAINING UNITS
AND RELATED MATERIALS

*Episode Filmed
(16mm color sound)

TRAINING UNIT I

Color Lotto:
- Learning Episode A - Exploration and Experimentation
- Learning Episode B - Visual Discrimination; "same color"
- *Learning Episode C - Saying Color Names
- Learning Episode D - No Visual Clues; Names of colors only

TRAINING UNIT II

Same as - Not the same as - Different from:
- *Learning Episode A - "Same size as"
- Learning Episode B - "Not the same size as"
- Learning Episode C - "Different from (or than)"
- Learning Episode D - "Same size as" and "Different from (or than)"

TRAINING UNIT III

Introduction - Self-Concept:
- Learning Episode A - Where Oh Where is Dear Nemecio?
- Learning Episode B - Mary Wore Her Red Dress
- *Learning Episode C - Language Master - child sees name printed and hears name said
- Learning Episode D - Language Master - child records name

TRAINING UNIT IV

Development of Senses - Muscular Tactile:
- *Learning Episode A - Drawstring Bag
- Learning Episode B - Feeling Materials
- Learning Episode C - Objects in Box; child identify by touch
- Learning Episode D - Alphabet Board

TRAINING UNIT V

Introduction - Language Development:
- Learning Episode A - Verbalization of Motor Activities, outdoors and in room
- Learning Episode B - Pictures of child's activities to provide using certain words.
- *Learning Episode C - Songs to Develop Language Skills, "Clap your hands so gaily"
- Learning Episode D - Object in Box - Child names it or states function. Teacher states attributes of object, child selects object and names it. Teacher states function, or problem involving function of an object, child is able to select the object from an array and name it.

TRAINING UNIT VI

Concept Formation:
- Learning Episode A - Opposing or contrasting conditions (opposites)
- Learning Episode B - Opposing or contrasting locations (opposites)
- *Learning Episode C - "Apple" - concrete, semi-concrete, abstract
- Learning Episode D - Grouping

TRAINING UNIT VII

Introduction - Counting and Number Concepts:
*Learning Episode A - Functional Counting
Learning Episode B - Cut Out Numerals
Learning Episode C - Numberite Puzzle
Learning Episode D - One-to-one Relationship

TRAINING UNIT VIII

Senses and Perceptions:
Learning Episode A - Sound Cylinders
Learning Episode B - Listening for Sounds in Closet
*Learning Episode C - Color Memory Game
Learning Episode D - Smell and Taste

TRAINING UNIT IX

Introduction - Locational Words, such as, above, below, in front of, etc.:
*Learning Episode A - "Leo the Lion"
Learning Episode B - Comprehension of words leading to the concept of relative location or position
Learning Episode C - Child says words of relative location as he sees relationship demonstrated
Learning Episode D - Extension of words through pictures

TRAINING UNIT X

Introduction - Problem Solving:
Learning Episode A - Patterns with concrete materials
*Learning Episode B - Puzzles with three dimensional patterns
Learning Episode C - Two dimensional puzzles to be worked with three dimensional materials
Learning Episode D - Which piece is missing?

TRAINING UNIT XI

Introduction - Geometric Shapes:
Learning Episode A - Objects shaped like a circle
*Learning Episode B - Spot painting on circles folded into semi-circles
Learning Episode C - Associating Name and Shape
Learning Episode D - Experiences with objects shaped like a circle, square, triangle, and rectangle

TRAINING UNIT XII

Geometric Shapes and Colors:
Learning Episode A - Sorting and classifying according to specified attributes
*Learning Episode B - Which one doesn't belong in the group?
Learning Episode C - Labeling objects according to color and shape
Learning Episode D - Select objects according to color and shape

TRAINING UNIT XIII

Relational Concepts - Relative Size:
Learning Episode A - Size comparisons that arise in informal play
Learning Episode B - Long - longer - longest; short - shorter - shortest
*Learning Episode C - Tall - taller - tallest; short - shorter - shortest
Learning Episode D - Large - larger - largest; small - smaller - smallest

TRAINING UNIT XIV

Problem Solving:
*Learning Episode A - ABC Elimination - Chalkboard
Learning Episode B - Guess What's in the Package?
Learning Episode C - Use of Books for Problem Solving
Learning Episode D - Finishing a Story

TRAINING UNIT XV

Color, Shape, and Size:
*Learning Episode A - String Shapes on Floor
Learning Episode B - Twister Game
Learning Episode C - Attribute Blocks
Learning Episode D - "Which piece is missing?" with geometric shapes and size

TRAINING UNIT XVI

Combine Color, Shape, Size, Space Relationships:
Learning Episode A - Counting with color, shape, and size
Learning Episode B - Overhead projector with shapes
*Learning Episode C - Triangle, circle, and rectangle plus color and size, on floor (felt pieces)
Learning Episode D - Suggestions for extension

Related Materials

Critiquer's Manual
With suggested critiquing instruments and film viewing procedures.

Films

Remote Training of Early Childhood Educators, a filmed supplement to this report of the NDEA Title XI Institute. 16mm color sound, 29 minutes.

Introduction to the New Nursery School, a comprehensive review of one program for young children in action. 16mm color sound, 27 minutes.

Book

Nimnicht, G., McAfee, O., Meier, J., The New Nursery School, New York: General Learning Corporation, 1969.

APPENDIX B

SUPPLEMENTARY MATERIALS

In addition to training units being distributed to each trainee and area administrator, materials written by Institute staff and others were sent when appropriate. These included books which were sent in small quantities to each center to add to the professional library.

Each trainee received these items:

Training Unit:	Title:
I	Equipment List
II	Simple Concept Formation Classroom Procedures
III	Dress-Up Area
VI	The Concept Formation Area Concept Formation Based on Food How to construct a Learning Episode
VII	Suggested Reading for NDEA Participants Published Materials on the New Nursery School
IX	Greeley's New Nursery School Supplementary Equipment List
XI	Classroom Management and Control

Each area also received small quantities of the following titles;

Mager, Robert. Preparing Instructional Objectives, Palo Alto: Fearon, 1962.

Featherstone, Joseph. "The Primary School Revolution in Britain," in New Republic, (August 10, September 2, 9, 1967).

Meier, John. "Innovations in Assessing the Disadvantaged Child's Potential," in Disadvantaged Child, Vol. 1, edited by Jerome Hellmuth, Seattle: Special Child Publications, 1967, pp. 173-199.

Meier, John. "Rationale for and Application of Microtraining to Improve Teaching," in Journal of Teacher Education, Vol. XIX: No. 2, (Summer, 1968).